

ATM|Series™



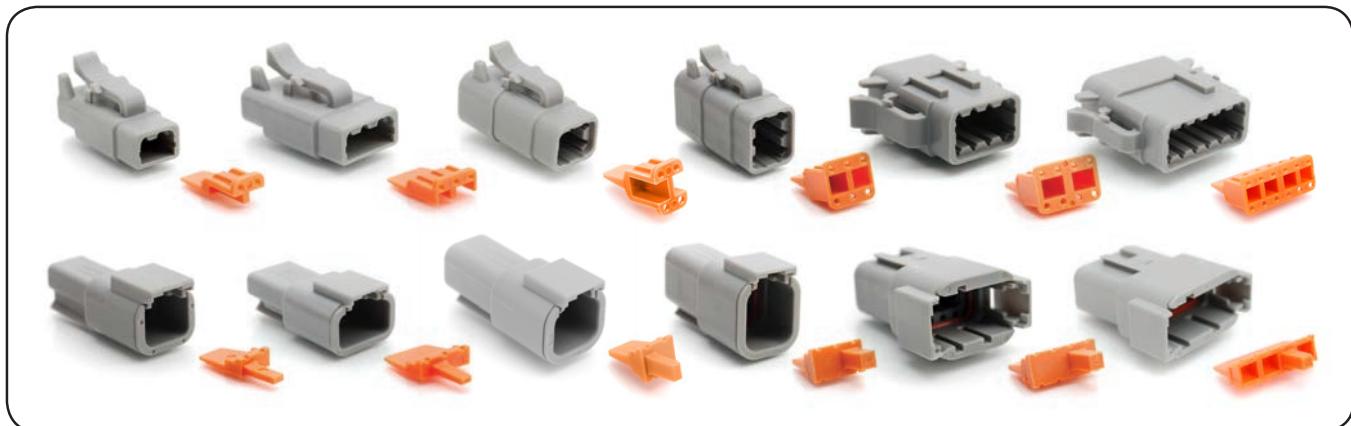
ATM Series™

Overview

ATM Series™ connectors are a high-performance, cost-effective solution specifically designed for smaller AWG applications, while still maintaining the strengths of the AT Series™ product line.

The connector design incorporates an integral latching system that ensures a definitive electrical and mechanical connection. Connector housings are manufactured with a thermoplastic material that is not only durable, but has excellent UV resistance, dielectric/mechanical properties and environmentally RoHS compliant. The sealing system is comprised of an internal and rear silicone, multi-sealing perimeter against environmental ingress. Contacts are derived from quality copper alloy to ensure an electrically-reliable connection.

ATM Series™ connectors are compatible with other existing standard products industry-wide.



Features & Benefits

Current Capacity	Size 20, 7.5A (max)
Wire Range	Size 20 contacts will accept wire ranges of 16 thru 22AWG
Temperature	Operating temperature range: -55°C to +125°C at rated current
Dielectric Value	Meets or exceeds 1500 volts minimum
Drop Test	Shall not become detached or loosened when placed at 750mm and dropped to concrete eight times
Shock	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)
Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (max acceleration 20 g's at Sine sweep of 10-2000Hz)
Connector Terminal Retention	When subjected to a direct pull, contacts achieve a minimum pull-out force of 89 lbs.
Connector Retention	A mated connector subjected to a pulling force by the exiting wire bundle at 89 lbs. times the number of contacts to a maximum of 356 lbs. applying load for 30 seconds
Thermal Shock	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
Insulation Resistance	1000 megohms minimum at 25°C
Mating Cycle Durability	Following 100 cycles of connection engagement and disengagement, degradation either mechanical or electrical is not evident

For custom insert configurations, please consult factory

ATM Series™

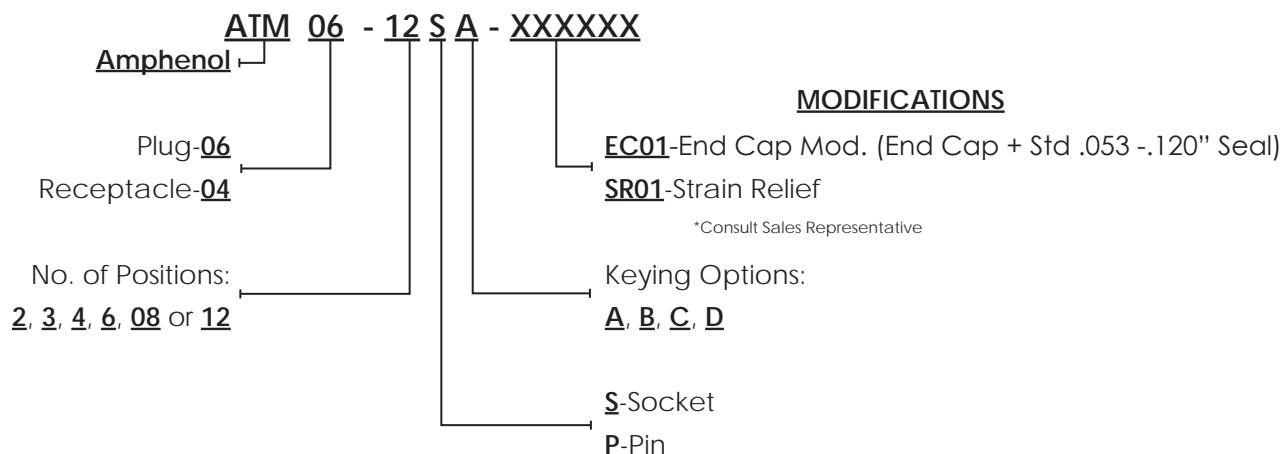
Features & Benefits, cont.

Contact Millivolt Drop	Size 20 (stamped & formed) contacts with 20AWG conductor - 60 mV (solid contact) drop max; 100 mV (stamped & formed contact) drop max at 7.5A test current
Water Immersion	A mated connection, properly wired, placed in an oven at +125°C for 1 hour, then placed immediately in a depth of water of 1 meter for 4 hours without loss of electronic performance

Product Material

Housings	Thermoplastic
Seals	Silicone Elastomer
Secondary Locks	Thermoplastic
Contacts	Copper Alloy, Nickel Plated, Gold optional

ATM Series™ Part Numbering Sequence



Plug & Receptacle Body Color Modification

A wide range of standard color options are available for all A Series™ product lines. 8 and 12 position plugs and receptacles require special order. For more information, please contact a Sales Representative.

Color	Modification Number	Color	Modification Number
Black	XXXX-XXXX-BLK	Yellow	XXXX-XXXX-YEL
White	XXXX-XXXX-WHT	Green	XXXX-XXXX-GRN
Brown	XXXX-XXXX-BRN	Blue	XXXX-XXXX-BLU
Grey	XXXX-XXXX-GRY	Red	XXXX-XXXX-RED



NOTE: The above modifications (-XXXX) are only a sampling of the options available to our customers. For more information, please contact your Sales Representative.

ATM Series™ Connector Configurations

STEP 1

Choose a Plug



Standard



Strain Relief

Wedgelocks
are required for
all Plugs



Wedgelock

MATING PARTS

STEP 2

Choose Contacts



Or
Choose a Plug Kit



Plug Kit
includes Plug,
Wedgelock & Contacts



Overmolded option
page 11

Need a complete Cable Assembly?

See page 11 or contact the factory for assistance

Toll Free: 1-800-394-7732

STEP 3

Choose a Receptacle



Standard



Strain Relief

Wedgelocks
are required for
all Plugs



Wedgelock

Or
Choose a
Receptacle Kit



Receptacle Kit
includes Receptacle,
Wedgelock & Contacts

STEP 2

Choose Contacts



Contact pins

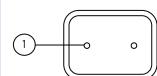


Overmolded option
page 11

Or

Choose a Plug &
Receptacle Kit

Plug & Receptacle Kit
includes Plug,
Receptacle, Wedgelock
& Contacts



Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

Plug	Part Number	Description	WedgeLock	Part Number	Description
	ATM06-2S	Plug, 2-Way		AWM-2S	WedgeLock Plug, 2-Way
	ATM06-2S-KIT01	2 Socket Plug, Wedge and Contacts Kit			

Receptacle	Part Number	Description	WedgeLock	Part Number	Description
	ATM04-2P	Receptacle, 2-Way		AWM-2P	WedgeLock Receptacle, 2-Way
	ATM04-2P-KIT01	2 Pin Receptacle, Wedge and Contacts Kit			

Plug & Receptacle Kit	Part Number	Description
	ATM2PS-CKIT	2-Way Pin and Socket Plug, Receptacle, Wedge and Contacts Kit

Other Available Options:

Strain Relief Series see page 34
Additional Colors: see page 23
Contacts on page 38
Tools on page 39

NOTE: Wedgelocks are required for all plugs.

ATM SERIES STANDARD PLUGS, RECEPTACLES & WEDGELOCKS

ATM
3 POSITIONS
7.5A

Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

CONNECTOR SOLUTIONS

Plug	Part Number	Description	Wedgelock	Part Number	Description
	ATM06-3S	Plug, 3-Way		AWM-3S	Wedgelock Plug, 3-Way
	ATM06-3S-KIT01				3 Socket Plug, Wedge and Contacts Kit

Receptacle	Part Number	Description	Wedgelock	Part Number	Description
	ATM04-3P	Receptacle, 3-Way		AWM-3P	Wedgelock Receptacle, 3-Way
	ATM04-3P-KIT01				3 Pin Receptacle, Wedge and Contacts Kit

Plug & Receptacle Kit	Part Number	Description
	ATM3PS-CKIT	3-Way Pin and Socket Plug, Receptacle, Wedge and Contacts Kit

Other Available Options:

Strain Relief Series: see page 34

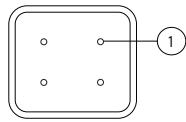
Additional Colors: see page 23

Contacts on page 38

Tools on page 39

NOTE: Wedgelocks are required for all receptacles.

ATM
4 POSITIONS
7.5A



ATM SERIES STANDARD PLUGS, RECEPTACLES & WEDGELOCKS

Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

Plug	Part Number	Description	Wedgelock	Part Number	Description
	ATM06-4S	Plug, 4-Way		AWM-4S	Wedgelock Plug, 4-Way
	ATM06-4S-KIT01	4 Socket Plug, Wedge and Contacts Kit			

Receptacle	Part Number	Description	Wedgelock	Part Number	Description
	ATM04-4P	Receptacle, 4-Way		AWM-4P	Wedgelock Receptacle, 4-Way
	ATM04-4P-KIT01	4 Pin Receptacle, Wedge and Contacts Kit			

Plug & Receptacle Kit	Part Number	Description
	ATM4PS-CKIT	4-Way Pin and Socket Plug, Receptacle, Wedge and Contacts Kit

Other Available Options:

Strain Relief Series: page 34

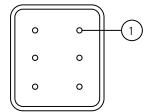
Additional Colors: see page 23

Contacts on page 38

Tools on page 39

NOTE: Wedgelocks are required for all plugs.

ATM SERIES STANDARD PLUGS, RECEPTACLES & WEDGELOCKS



ATM
6 POSITIONS
7.5A

Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

Plug	Part Number	Description
	ATM06-6S	Plug, 6-Way
	ATM06-6S-KIT01	

Wedgelock	Part Number	Description
	AWM-6S	Wedgelock Plug, 6-Way

6 Socket Plug, Wedge and Contacts Kit

Receptacle	Part Number	Description
	ATM04-6P	Receptacle, 6-Way
	ATM04-6P-KIT01	

Wedgelock	Part Number	Description
	AWM-6P	Wedgelock Receptacle, 6-Way

6 Pin Receptacle, Wedge and Contacts Kit

Plug & Receptacle Kit	Part Number	Description
	ATM6PS-CKIT	6-Way Pin and Socket Plug, Receptacle, Wedge and Contacts Kit

Other Available Options:

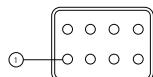
Strain Relief Series: see page 34

Additional Colors: see page 23

Contacts on page 38

Tools on page 39

NOTE: Wedgelocks are required for all receptacles.



Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

Plug	Part Number	Description	WedgeLock	Part Number	Description
A grey plastic 8-way, A-position plug with a metal contact retainer.	ATM06-08SA	Plug, 8-Way, A Position*	An orange plastic wedge lock with two red locking pins.	AWM-8S	WedgeLock Plug, 8-Way
A kit containing the ATM06-08SA plug, the AWM-8S wedge lock, and the required contacts.	ATM06-08SA-KT01	8 Socket Plug, Wedge and Contacts Kit			

Receptacle	Part Number	Description	WedgeLock	Part Number	Description
A grey plastic 8-way, A-position receptacle with a metal contact retainer.	ATM04-08PA	Receptacle, 8-Way, A Position*	An orange plastic wedge lock with two red locking pins.	AWM-8P	WedgeLock Receptacle, 8-Way
A kit containing the ATM04-08PA receptacle, the AWM-8P wedge lock, and the required contacts.	ATM04-08PA-KT01	8-Way Pin Receptacle, Wedge and Contacts Kit			

Plug & Receptacle Kit	Part Number	Description
A kit containing the ATM06-08SA and ATM04-08PA components, along with the required contacts and wedge locks.	ATM8PS-CKIT	8-Way Pin and Socket Plug, Receptacle, Wedge and Contacts Kit

Other Available Options:

Strain Relief Series see page 34

Shrink Boot Adaptor: see page 34

Additional Colors: see page 23

Contacts on page 38

Tools on page 39

*Alternate keying positions available (B,C,D): see page 31

NOTE: Wedgelocks are required for all plugs.

ATM SERIES ALTERNATE POSITION PLUGS, RECEPTACLES & WEDGELOCKS

ATM
8 POSITIONS-
B,C,D KEYS 7.5A

Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

Plug	Part Number	Description
	ATM06-08SB	Plug, 8-Way, B Position, Black
	ATM06-08SC	Plug, 8-Way, C Position, Green
	ATM06-08SD	Plug, 8-Way, D Position, Brown

WedgeLock	Part Number	Description
	AWM-8S	WedgeLock Plug, 8-Way

Receptacle	Part Number	Description
	ATM04-08PB	Receptacle, 8-Way, B Position, Black
	ATM04-08PC	Receptacle, 8-Way, C Position, Green
	ATM04-08PD	Receptacle, 8-Way, D Position, Brown

WedgeLock	Part Number	Description
	AWM-8P	WedgeLock Receptacle, 8-Way

Other Available Options:

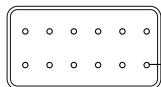
Strain Relief Series see page 34

Additional Colors: see page 23

Contacts on page 38

Tools on page 39

NOTE: Wedgelocks are required for all plugs.



Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

Plug	Part Number	Description	Wedgelock	Part Number	Description
A grey 12-way ATM plug with a metal housing and a grey plastic cover.	ATM06-12SA	Plug, 12-Way, A Position*	An orange plastic wedge lock with three rectangular cutouts.	AWM-12S	Wedgelock Plug, 12-Way
A kit containing the ATM06-12SA plug and the AWM-12S wedge lock, along with some small metal pins.	ATM06-12SA-KT01	12-Way Socket Plug, Wedge and Contacts Kit			

Receptacle	Part Number	Description	Wedgelock	Part Number	Description
A grey 12-way ATM receptacle with a metal housing and a grey plastic cover.	ATM04-12PA	Receptacle, 12-Way, A Position*	An orange plastic wedge lock with three rectangular cutouts.	AWM-12P	Wedgelock Receptacle, 12-Way
A kit containing the ATM04-12PA receptacle and the AWM-12P wedge lock, along with some small metal pins.	ATM04-12PA-KT01	12 -Way Receptacle, Wedge and Contacts Kit			

Plug & Receptacle Kit	Part Number	Description
A kit containing the ATM06-12SA and ATM04-12PA components, along with the AWM-12S and AWM-12P wedge locks and pins.	ATM12PS-CKIT	12-Way Pin and Socket Plug, Receptacle, Wedge and Contacts Kit

Other Available Options:

Strain Relief Series see page 34

Additional Colors: see page 23

Contacts on page 38

Tools on page 39

*Alternate keying positions available (B,C,D): see page 33

NOTE: Wedgelocks are required for all receptacles.

ATM SERIES ALTERNATE POSITION PLUGS, RECEPTACLES & WEDGELOCKS

ATM
12 POSITIONS-
B,C,D KEYS 7.5A

Contact Size	20
Wire Range (AWG)	20-22 AWG
Amperage	7.5

CONNECTOR SOLUTIONS

Plug	Part Number	Description
	ATM06-12SB	Plug, 12-Way, B Position, Black
	ATM06-12SC	Plug, 12-Way, C Position, Green
	ATM06-12SD	Plug, 12-Way, D Position, Brown

WedgeLock	Part Number	Description
	AWM-12S	WedgeLock Plug, 12-Way

Receptacle	Part Number	Description
	ATM04-12PB	Receptacle, 12-Way, B Position, Black
	ATM04-12PC	Receptacle, 12-Way, C Position, Green
	ATM04-12PD	Receptacle, 12-Way, D Position, Brown

WedgeLock	Part Number	Description
	AWM-12P	WedgeLock Receptacle, 12-Way

Other Available Options:

Strain Relief Series see page 34

Additional Colors: see page 23

Contacts on page 38

Tools on page 39

NOTE: Wedgelocks are required for all receptacles.

ATM SERIES STANDARD PLUG STRAIN RELIEF SERIES

The ATM Strain Relief Series' specifically designed wire cavities protect each individual wire seal, eliminating stress on the rear seal, maintaining IP67 sealing performance regardless of wire bundle direction or improper installation. It is a cost-effective and highly-reliable solution for wire routing, strain relief and sealing issues common in Heavy Duty applications. It ensures a complete environmental seal and necessary strain relief on the production line and in the field.

ATM-SR01 has Standard Seals

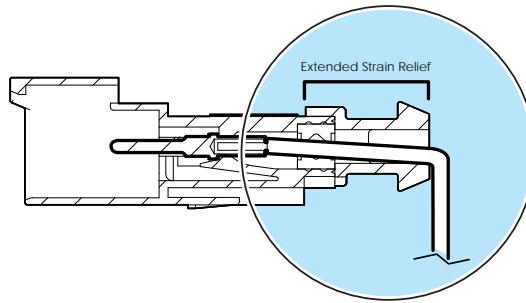
Plug	Part Number	Description
	ATM06-2S-SR01GY	2-Way Plug, Female Connector with Strain Relief
	ATM06-3S-SR01GY	3-Way Plug, Female Connector with Strain Relief
	ATM06-4S-SR01GY	4-Way Plug, Female Connector with Strain Relief
	ATM06-6S-SR01GY	6-Way Plug, Female with Strain Relief
	ATM06-08SA-SR1GY	8-Way Plug, Female Connector with A Position Key and Strain Relief
	ATM06-08SB-SR1BK	Plug, 8-Way, B Position Black, with Strain Relief
	ATM06-08SC-SR1GN	Plug, 8-Way, C Position Green, with Strain Relief
	ATM06-08SD-SR1BN	Plug, 8-Way, D Position Brown, with Strain Relief

Wedgelock	Part Number	Description
	AWM-2S	Wedgelock Plug, 2-Way
	AWM-3S	Wedgelock Plug, 3-Way
	AWM-4S	Wedgelock Plug, 4-Way
	AWM-6S	Wedgelock Plug, 6-Way
	AWM-8S	Wedgelock Plug, 8-Way

NOTE: Wedgelocks are required for all plugs.

ATM SERIES STANDARD PLUG STRAIN RELIEF SERIES

ATM
STRAIN RELIEF
7.5A



Plug	Part Number	Description
	ATM06-12SA-SR1GY	12-Way Plug, Female Connector, A Position Key with Strain Relief
	ATM06-12SB-SR1BK	Plug, 12-Way, B Position Black, with Strain Relief
	ATM06-12SC-SR1GN	Plug, 12-Way, C Position Green, with Strain Relief
	ATM06-12SD-SR1BN	Plug, 12-Way, D Position Brown, with Strain Relief

WedgeLock	Part Number	Description
	AWM-12S	WedgeLock Plug, 8-Way

**ATM SERIES STANDARD RECEPTACLE
 STRAIN RELIEF SERIES**

Receptacle	Part Number	Description
	ATM04-2P-SR01GY	2-Way Receptacle, Male Connector with Strain Relief
	ATM04-3P-SR01GY	3-Way Receptacle, Male Connector with Strain Relief
	ATM04-4P-SR01GY	4-Way Receptacle, Male with Strain Relief
	ATM04-6P-SR01GY	6-Way Receptacle, Male with Shrink Boot Adaptor
	ATM04-08PA-SR1GY	8-Way Receptacle, Male Connector with A Position Key, with Strain Relief
	ATM04-08PB-SR1BK	Receptacle, 8-Way, B Position, Black, with Strain Relief
	ATM04-08PC-SR1GN	Receptacle, 8-Way, C Position, Green, Strain Relief
	ATM04-08PD-SR1BN	Receptacle, 8-Way, D Position, Brown, with Strain Relief

Wedgelock	Part Number	Description
	AWM-2P	Wedgelock Receptacle, 2-Way
	AWM-3P	Wedgelock Receptacle, 3-Way
	AWM-4P	Wedgelock Receptacle, 4-Way
	AWM-6P	Wedgelock Receptacle, 6-Way
	AWM-8P	Wedgelock Receptacle, 8-Way

NOTE: Wedgelocks are required for all receptacles.

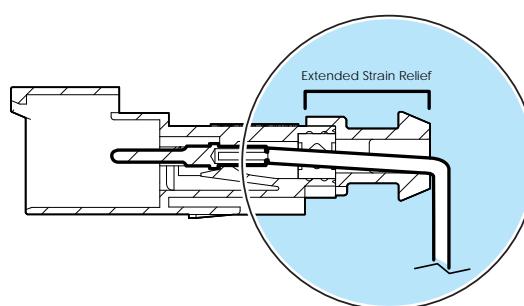
ATM SERIES STANDARD RECEPTACLE STRAIN RELIEF SERIES

ATM
STRAIN RELIEF
7.5A

CONNECTOR SOLUTIONS

Receptacle	Part Number	Description
	ATM04-12PA-SR1GY	12-Way Receptacle, Male Connector with A Position Key with Strain Relief
	ATM04-12PB-SR1BK	Receptacle, 12-Way, B Position, Black, with Strain Relief
	ATM04-12PC-SR1GN	Receptacle, 12-Way, C Position, Green, with Strain Relief
	ATM04-12PD-SR1BN	Receptacle, 12-Way, D Position, Brown, with Strain Relief

Wedgelock	Part Number	Description
	AWM-12P	Wedgelock Receptacle, 12-Way



Contacts

Amphenol offers two types of contacts for use in our products: Solid and Stamped & Formed. Both types of contacts utilize the simple crimp-style termination, requiring no solder usage.



Standard Contacts - Solid Sockets & Pins

Series	Size	AWG	Type	Part Number	Description
ATM	20	20-22	Solid	AT62-201-2031	Female Contact - Socket, Gold-plated
ATM	20	20-22	Solid	AT62-201-20141	Female Contact - Socket, Nickel-plated
ATM	20	20-22	Solid	AT60-202-2031	Male Contact - Pin, Gold-plated
ATM	20	20-22	Solid	AT60-202-20141	Male Contact - Pin, Nickel-plated

Standard Contacts - Stamped & Formed Sockets & Pins

Series	Size	AWG	Type	Part Number	Description
ATM	20	16-22	S & F	AT62-20-0122	Female Contact - Socket, Nickel-plated
ATM	20	16-22	S & F	AT62-20-0144	Female Contact - Socket, Gold-plated
ATM	20	16-22	S & F	AT60-20-0122	Male Contact - Pin, Nickel-plated
ATM	20	16-22	S & F	AT60-20-0144	Male Contact - Pin, Gold-plated

Crimp Tools

Amphenol offers two types of contacts for use in our products: Solid and Stamped & Formed. Both types of contacts utilize the simple crimp-style termination, requiring no solder usage. Below are the tools available to assist with your crimping needs to ensure a proper connection between contact and wire.

Part	Part Number	Description
	CA-5D12	Universal Hand Crimp Tool, Size 12/16/20 *Solid contacts only
	CA-5E12	Pneumatic Crimp Tool, Size 12/16/20 *Solid contacts only
	MFX-3974	Crimp Die - Size 20 (Stamped & Formed Contacts)
	ATT-20-00	Size 20, 20AWG, Stamped & Formed Contact Tool

AT Series™ Contact Removal Tool

Part	Part Number	Description
	ATRT-100	Used for removal of contacts for AT Series™ products

Seal Plugs



Series	Contact Size	AWG	Part No.	Description
ATM	20	20-22	AT13-204-2005	Seal Plugs, White
ATM	20	20-22	AT13-204-2005-SR	Seal Plugs, Black (For SR01 Series)